



*Pile Dynamics, Inc.*

# Certificate of Calibration

Transducer Model: BDI ST350

**Serial Number: 0038**

**PDI Gage Factor: 149.4  $\mu\text{E}/\text{V}$**

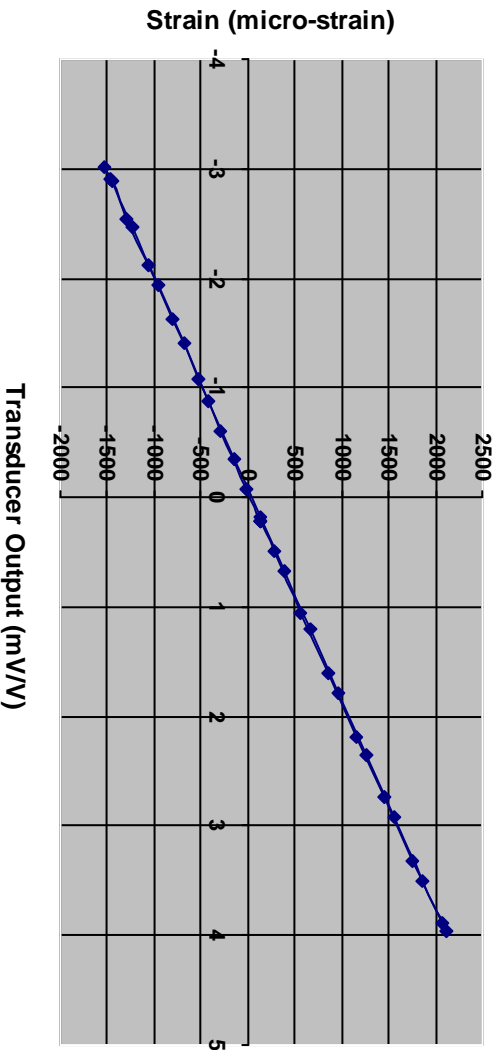
General Gage Factor: 518.6  $\mu\text{E}/\text{mV}/\text{V}_{\text{ext}}$

Initial Offset Voltage: 0.078  $\text{mV}/\text{V}_{\text{ext}}$

Table 1 – Representative Calibration Data

Applied Strain ( $\mu\text{E}$ )	Transducer Output ( $\text{mV}/\text{V}_{\text{ext}}$ )	Applied Strain ( $\mu\text{E}$ )	Transducer Output ( $\text{mV}/\text{V}_{\text{ext}}$ )
129	0.214	386	0.676
-18	-0.075	659	1.211
-290	-0.602	954	1.781
-538	-1.084	1257	2.352
-809	-1.618	1557	2.927
-1068	-2.121	1863	3.505
-1288	-2.548	2108	3.968
-1472	-2.908	2067	3.895
-1528	-3.010	1757	3.323
-1455	-2.890	1450	2.745
-1233	-2.474	1156	2.181
-962	-1.941	859	1.612
-688	-1.409	569	1.052
-416	-0.880	281	0.488
-144	-0.348	131	0.212
126	0.172	131	0.211

## Calibration Curve



Mean Linear Correlation Coefficient (LCC): 9.999580E-1

LCC Standard Deviation: 7.010533E-7

Calibrated By: Vanna Thach

Signature: \_\_\_\_\_

Date/Time: 10/14/2016 10:51 AM

Temperature ( $^{\circ}\text{C}$ ): 25.3

# Specifications

## PDI Automated Strain Transducer Calibration System (PDI-ASTCS)

ASTCS Calibration Information	
ASTCS Serial Number:	ASTCS-0005
ASTCS Software Version:	2.310
ASTCS Independent Verification Date:	11/5/2014 11:54 AM
Strain Transducer Gage Length:	3.0 inches (76.2 mm)
Applied Full Scale Displacement Range:	±7.500000E-3 inches
Method for Applying Displacement:	Precision Step Motor Coupled to Linear Stage
Excitation Voltage for Calibration:	2.5 VDC
Displacement Measurements:	Dual Precision AC LVDT's, Output Averaged
Displacement Certification:	NIST 274437-07
Linearity Verification Technique:	Linear Correlation Coefficient > 0.9999
Repeatability Verification Technique:	Standard Deviation < 0.5 % (of mean)
ASTCS System Check	
Reference Strain Transducer:	4367T
Reference General Gage Factor:	293.000 µε/mV/V
LVDT #1 Sensitivity (inches/volt):	7.916500E-3
LVDT #2 Sensitivity (inches/volt):	8.042000E-3
Date/Time of Last System Check:	10/14/2016 10:20 AM
PDI Strain Transducer Connections	
Black:	+ Excitation
Green:	- Excitation
Red:	+ Signal
White:	- Signal
Grey:/BARE	Shield

NIST Reference:

PDI certifies the above PDI-ASTCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique. The calibration of this instrument was performed in accordance with the PDI Quality Assurance program. Measurements and information provided on this report are valid at the time of calibration only.